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      (FILE 'HOME' ENTERED AT 18:51:56 ON 08 MAR 2002)

      FILE 'MEDLINE, CANCERLIT, EMBASE, BIOSIS, CAPLUS, BIOTECHDS' ENTERED AT
      18:52:15 ON 08 MAR 2002
L1            47 S DODAP
L2       1441294 S IMMUNE OR ADJUVANT
L3             1 S L1 AND L2
L4             1 DUP REM L3 (0 DUPLICATES REMOVED)
L5       1267980 S IMMUNOGEN OR ANTIGEN
L6             0 S L5 AND L1
L7        295484 S VACCINE OR IMMUNOGENIC
L8             1 S L7 AND L1
L9            25 DUP REM L1 (22 DUPLICATES REMOVED)
L10           42 S CATIONIC LIPID AND ADJUVANT
L11           18 DUP REM L10 (24 DUPLICATES REMOVED)

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L11 ANSWER 16 OF 18 MEDLINE DUPLICATE 7
AN 1999294420 MEDLINE
DN 99294420 PubMed ID: 10367954
TI **Cationic lipid** DC-Chol induces an improved and balanced immunity able to overcome the unresponsiveness to the hepatitis B vaccine.
AU Brunel F; Darbouret A; Ronco J
CS Research Department, Pasteur Merieux Connaught, Marcy L'Etoile, France.
SO VACCINE, (1999 Apr 23) 17 (17) 2192-203.
Journal code: X6O; 8406899. ISSN: 0264-410X.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199907
ED Entered STN: 19990806
Last Updated on STN: 19990806
Entered Medline: 19990727
AB Th1 and Th2 immune responses against antigens can be modulated by the use of adjuvants. Since antibody isotypes (IgG1 and IgG2a) and cytokines induced may reflect the Th differentiation taking place during the immune response, the humoral and cellular immune responses induced in mice against hepatitis B virus surface antigen (HBsAg) were examined when the antigen was either adsorbed to aluminum hydroxyde or administered with a new **adjuvant** the **cationic lipid** 3beta-[N-(N',N'-dimethylaminoethane)carbamoyl]cholesterol (DC-Chol). The use of DC-Chol increased antibody responses in responding BALB/c mice, induced more consistent IgG1 and IgG2a antibody responses in OF1 mice and overcame the nonresponse to HBsAg in B10.M mice. Furthermore, DC-Chol was able to induce cellular immune responses to HBsAg. The DC-Chol induced a balanced Th1/Th2 response, which enabled mice to overcome the inherited unresponsiveness to HBsAg encountered with aluminum-adjuvanted vaccine. Thus, the DC-Chol provides a signal to switch on both Th1 and Th2 responses, which may have important implications for vaccination against hepatitis B virus, as well as for enhancing weak immunogenicity of other recombinant purified antigens in a nonresponder population.

L11 ANSWER 12 OF 18 MEDLINE DUPLICATE 5
AN 2000385150 MEDLINE
DN 20227408 PubMed ID: 10766341
TI Activation of host antitumoral responses by **cationic lipid**/DNA complexes.
AU Bramson J L; Bodner C A; Graham R W
CS Inex Pharmaceuticals Corporation, Burnaby, British Columbia, Canada.. bramsonj@FHS.mcmaster.ca
SO CANCER GENE THERAPY, (2000 Mar) 7 (3) 353-9.
Journal code: CE3; 9432230. ISSN: 0929-1903.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200008
ED Entered STN: 20000818
Last Updated on STN: 20000818
Entered Medline: 20000804
AB A model of lipoplex-induced peritonitis was used to characterize the inflammatory response to **cationic lipid**:DNA lipoplexes with respect to activation of host antitumoral effector mechanisms. Three different cationic lipids were used in these studies: N,N-dioleyl-N,N-dimethylammonium chloride (DODAC), N-(1-[2,3-dioleoyloxylpropyl)-N,N,N-trimethylammonium chloride (DOTAP), and N-(1-[2,3-dioleyloxy]propyl)-N,N,N-trimethylammonium chloride (DOTMA). The DODAC and DOTMA lipoplexes exhibited similar transfection properties in vitro, whereas the DOTAP lipoplexes transfected quite poorly in all cell lines tested. Intraperitoneal injection of cationic lipoplexes into immunocompetent mice resulted in a profound infiltration of inflammatory cells, secretion of interferon-gamma, and increased natural killer activity within the peritoneal cavity. Both DODAC and DOTMA lipoplexes produced similar inflammatory responses, lasting at least 5 days. The inflammation induced by DOTAP lipoplexes peaked by day 3 and resolved to near-control levels by day 5. These data indicate that although **cationic lipid** DNA complexes may differ in their inflammatory properties, the natural killer activation and interferon-gamma secretion that follow lipoplex administration should provide a functional **adjuvant** for cancer gene therapies that benefit from immunostimulation.

L11 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2002 ACS
AN 2000:861646 CAPLUS
DN 134:21482
TI Cytofectin dimers and methods of use thereof
IN Wheeler, Carl J.
PA Vical, Inc., USA
SO PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000073263	A1	20001207	WO 2000-US14676	20000526
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1183231	A1	20020306	EP 2000-939373	20000526
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1999-136472	P	19990528		
	WO 2000-US14676	W	20000526		

OS MARPAT 134:21482
AB A compn. is provided comprising a novel **cationic lipid** compd. having hydrophobic tails and two quaternary ammonium headgroups bridged by a linker. The compn. is useful as a cytofectin for facilitating delivery and transfection of biol. active agents, particularly anionic bioactive agents such as DNA, into cells. The compn. is useful also as an **adjuvant** for enhancing the humoral immune response of a vertebrate to an immunogen, esp. an immunogen encoded by a polynucleotide-based vaccine. In certain preferred embodiments, the **cationic lipid** compd. is a dimer contg. quaternary ammonium headgroups bridged by a linker having DNA and/or cell receptor binding affinity, such as a polypeptide or polyamine. Also disclosed is an immunogenic compn. comprising an immunogen and the compn. of the present invention. I was prepd. as an example compd.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 18 MEDLINE DUPLICATE 3
AN 2001546235 MEDLINE
DN 21477224 PubMed ID: 11592838
TI Antitumor activity of **cationic lipid** complexed with immunostimulatory DNA.
AU Rudginsky S; Siders W; Ingram L; Marshall J; Scheule R; Kaplan J
CS Genzyme Corporation, Framingham, Massachusetts 01701, USA.
SO MOLECULAR THERAPY, (2001 Oct) 4 (4) 347-55.
Journal code: 100890581. ISSN: 1525-0016.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200112
ED Entered STN: 20011011
Last Updated on STN: 20020122
Entered Medline: 20011212
AB We previously reported that treatment of intraperitoneal tumors with complexes of **cationic lipid** and noncoding plasmid DNA leads to the development of a specific, cytotoxic T-cell response correlating with the rejection of established tumor cells as well as subsequent tumor re-challenge. Here, focusing on an intraperitoneal AB12 mesothelioma model, we show that the anticancer effects of the lipid:DNA complex are associated with DNA containing immunostimulatory CpG motifs. Complexes prepared with **cationic lipid** and bacterial plasmid DNA, Escherichia coli genomic DNA fragments, or synthetic immunostimulatory CpG oligodeoxynucleotides provided a substantial survival benefit, whereas eukaryotic DNA and methylated bacterial DNA had little or no therapeutic activity. Alternative inflammatory stimuli such as thioglycolate, poly(I:C), and incomplete or complete Freund's **adjuvant** failed to reproduce the antitumor activity obtained with the lipid:DNA complex. The innate immune response triggered by lipid:DNA complexes led to the development of a systemic immune response against tumor cells that allowed animals to reject tumors not only at the intraperitoneal treatment site, but also at a distal subcutaneous site. These data demonstrate that immunostimulatory DNA complexed with **cationic lipid** is a potent inducer of innate and adaptive immune responses against tumor cells and represents a potentially useful tool in the immunotherapy of cancers for which tumor-associated antigens have not been identified.